

CLAIM AMENDMENTS

1. (currently amended) A composition comprising a hydrogel matrix and a particulate magnetic material having a particle size of 1 to 100 nm dispersed within said matrix, said matrix being permeable and having accessible interior surfaces defining a cage for physical or chemical entrapment of an immuno-reactant or diagnostic agent.
2. (original) A composition according to claim 1 wherein said matrix is derived from gelatinized starch granules.
3. (original) A composition according to claim 2 in which said granules comprise a framework of amylopectin from which amylose chains have been expelled.
4. (currently amended) A composition according to claim 3 wherein said particulate material is super paramagnetic superparamagnetic.
5. (currently amended) A composition according to claim 4, wherein said matrix is permeable and has accessible interior surfaces defining a cage for physical or chemical entrapment of has antigens or antibodies physically or chemically entrapped therein.
6. (currently amended) In an immunoseparation process employing an immuno-reactant supported by a magnetic substrate and comprising carrying out an immuno-reaction with the supported immuno-reactant in a reaction medium to produce an immuno-reaction product supported by said magnetic substrate, and magnetically separating said magnetic substrate with said reaction product from said reaction medium, the improvement wherein the magnetic substrate is a composition as defined

Commissioner for Patents

Serial No. 09/837,742

in claim 1 and the immuno-reactant is entrapped in a the cage of the composition as defined in claim 1.

7. (currently amended) In a diagnostic method in which a diagnostic agent is supported in a magnetic support material and comprising reacting the diagnostic agent with a species in a reaction medium to produce a diagnostic reaction product supported by said magnetic support material, and magnetically separating said magnetic support material with said diagnostic reaction product, the improvement wherein the magnetic support material is a composition as defined in claim 1.

8. (original) A diagnostic kit comprising a diagnostic agent supported in a composition as defined in claim 1.

9. (original) An immunoseparation device comprising an immuno-reactant entrapped in a composition as defined in claim 1.

10. (original) A xerogel of the composition of claim 1.

11. (new) A process according to claim 6, wherein said matrix is derived from gelatinized starch granules.

12. (new) A process according to claim 11, in which said granules comprise a framework of amylopectin from which amylose chains have been expelled.

13. (new) A process according to claim 12, wherein said particulate magnetic material is superparamagnetic.

14. (new) A process according to claim 6, wherein said immuno-reactant is an antibody.

Commissioner for Patents

Serial No. 09/837,742

15. (new) A process according to claim 6, wherein said immuno-reactant is an antigen.

16. (new) A method according to claim 7, wherein said matrix is derived from gelatinized starch granules, said granules comprising a framework of amylopectin from which amylose chains have been expelled.

17. (new) A device according to claim 9, wherein said matrix is derived from gelatinized starch granules, said granules comprising a framework of amylopectin from which amylose chains have been expelled, said immuno-reactant comprising an antibody.

18. (new) A device according to claim 9, wherein said matrix is derived from gelatinized starch granules, said granules comprising a framework of amylopectin from which amylose chains have been expelled, said immuno-reactant comprising an antigen.

19. (new) A device according to claim 17, wherein said particulate magnetic material is superparamagnetic.